

## CLAIMS

WHAT IS CLAIMED:

1. A method for separating a stack of sheets already formed from a stack being formed, during the production of paper packed products, comprising the steps of:
  - 5 a) formation of a stack of interfolded sheets that are piled up on a table located underneath;
  - b) separation of two successive interfolded sheets once achieved a predetermined height of said stack being formed, thus defining a completed stack and a stack being formed;
  - 10 c) said separation occurring by lateral introduction of a first and a second separator into said stack being formed and from opposite sides with respect to the stack same for separating the stack located underneath and for leaving at least one wing of sheet hanging free between said two separators;
  - d) moving away said completed stack of sheets from said table and leaving  
15 it on a conveyor belt or an outlet plane;
  - e) moving a sheet stretching board suitable for provisionally supporting the stack and stretching said or each wing, with a portion of wing of sheet exceeding said sheet stretching board;
  - f) withdrawing said first and second separator up to reaching a position  
20 external to said stack being formed, and

g) moving back said table and withdrawing the sheet stretching board, with said portion of wing that remains between said stack and said table.

2. The method of Claim 1, wherein before moving back said table an element moving from a direction opposite to said sheet stretching board stretches said portion of wing of sheet exceeding said sheet stretching board.

3. The method of Claim 1, wherein a step is provided of making an end fold on the portion of said wing exceeding said sheet stretching board by means of both an element moving from the opposite side to said sheet stretching board and an element moving from the same side of said sheet stretching board, just before coming back said table.

4. The method of Claim 3, wherein said end fold is made using as element moving from the opposite side of the sheet stretching board the corresponding separator, and as element moving from the same side of said sheet stretching board a blow of air, said separator moving from a position outer to the stack, after that said sheet stretching board is positioned, to a position below the lower face of said sheet stretching board and in order to make the end fold on the exceeding portion of sheet by said blow of air.

5. The method of Claim 1, wherein previously to the step of moving away said completed stack on the conveyor belt, or in the outlet plane, a blow of air is provided for moving a possible last sheet that has remained in a vertical position bringing it to an horizontal position.

6. An apparatus for separating a stack of sheets already formed from a stack being formed during the production of paper products in interfolded stacks, comprising:

- a) means for providing said interfolded stack of sheets;
- 5 b) a table for supporting said stack movable for allowing progressively the growth of said stack and for then moving away the formed stack;
- c) a first and a second separator that are moved laterally into said stack and from opposite sides with respect to the stack same for separating the stack located underneath and to leave at least one wing of sheet hanging free between said two  
10 separators; and
- d) a sheet stretching board suitable for provisionally supporting the stack and stretching said or each wing, with a portion of wing of sheet exceeding said sheet stretching board.

7. The apparatus of Claim 6, comprising, furthermore, an element moving  
15 from a direction opposite to said sheet stretching board, with respect to the processed stack, suitable for stretching said portion of wing of sheet exceeding said sheet stretching board just before coming back said table.

8. The apparatus of Claim 6, wherein said element moving from the opposite side of said sheet stretching board is a blow of air.

9. The apparatus of Claim 6, wherein said first and second separator are engaged to a support operatively coupled to a connecting rod operated by a motor; said connecting rod rotating by means of a cam and causing the rotation about a first and a second pivot of an articulated quadrilateral associated to a movable carriage along a sliding direction.

10. The apparatus of Claim 6, wherein said sheet stretching board slides on a base integral to said support of said first separator in a direction orthogonal to said sliding direction operated by an actuator that causes it to move along this direction.

11. The apparatus of Claim 6, wherein said table is located on a slide movable horizontally along a guide operated by an actuator.